

Windows®. Life without Walls™.
Fujitsu recommends Windows 7.

Data Sheet

Fujitsu ESPRIMO E5645 E-Star5 Desktop PC

Your desktop without compromises

ESPRIMO E5645 E-Star5

The ESPRIMO E5645 E-Star5 is equipped with the latest AMD technology and offers extraordinary performance. With the powerful six-core processor from AMD this system reaches new performance levels enabling fast and easy handling of challenging tasks. The ESPRIMO E5645 E-Star 5.0 can be positioned vertically or horizontally - ideal when there is hardly any space. Additionally equipped with a power supply with up to 87% efficiency and specially selected components, the PC meets ENERGY STAR® requirements, reducing your power consumption and keeping costs to a minimum.



Small form factor PC

Flexible desktop solution whatever the space required.

- Less than 13 litres volume, can be positioned vertically and horizontally

New performance high

Fast and easy handling of challenging tasks at maximum performance

- High-quality six-core processor with Turbo Core technology

ENERGY STAR®

Low power consumption and low costs, without any loss in performance

- Power supply with up to 87% efficiency and enhanced power management settings

Silent operation

Pleasant working environment due to an extremely quiet system

- Innovative hardware design, optimized cooling concept

Serviceability

Easy to extend and optimal user-friendliness without any additional tools

- Easy access to all replaceable and expandable components



Components

Processor	AMD Phenom™ II X6 1035T (6 Cores, 2.6 GHz, 9 MB)
	AMD Phenom™ II X4 945 (4 Cores, 3.0 GHz, 8 MB)
	AMD Phenom™ II X2 550 (2 Cores, 3.1 GHz, 7 MB)
	AMD Athlon™ II X2 255 (2 Cores, 3.1 GHz, 2 MB)
	AMD Athlon™ II X2 220 (2 Cores, 2.8 GHz, 1 MB)
Operating system	
Operating system	Genuine Windows® 7 Home Basic (EM) 32-bit
	Genuine Windows® 7 Home Premium 64-bit
	Genuine Windows® 7 Professional 32-bit
	Genuine Windows® 7 Professional 64-bit
Operating system compatible	
Operating system compatible	openSUSE Linux
	Genuine Windows Vista®
	Genuine Windows® XP
Operating system notes	
Operating system notes	Microsoft Office 2010 preloaded. Purchase a Product Key to activate a full Microsoft Office 2010 suite.
	Limited Windows XP support. Microsoft discontinued Windows XP certification on system level.
Memory modules	
Memory modules	2 GB (1 module(s) 2 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM
	4 GB (1 module(s) 4 GB) DDR3, unbuffered, non-ECC, 1333 MHz, PC3-10600, DIMM
Hard disk drives (internal)	
Hard disk drives (internal)	SSD SATA, 128 GB, 2.5-inch
	SATA II, 7200 rpm, 1000 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T. business critical
	SATA II, 7200 rpm, 500 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 320 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 250 GB, 3.5-inch, S.M.A.R.T.
	SATA II, 7200 rpm, 160 GB, 2.5-inch, S.M.A.R.T.
	Supporting NCQ and 3 GBit
Graphics add on cards (optional)	
Graphics add on cards (optional)	NVIDIA® Quadro® NVS 300 LP, 512 MB
	NVIDIA® Quadro® NVS 290 low profile, 256 MB
	NVIDIA® GeForce® GT 420
	NVIDIA® GeForce® 9300GE display port low profile, 512 MB
	NVIDIA® GeForce® 405 display port low profile, 512 MB
	LFH59/ 2x DVI-I adapter cable
	LFH59/ 2x DP adapter cable
	DP to DVI-D (single link) Adapter Cable
Drives (optional)	
Drives (optional)	Blu-ray Disc™ Triple Writer
	DVD-ROM
	DVD Super Multi
	MultiCard Reader 20in1, USB 2.0, 3.5-Inch
	MultiCard Reader 20in1 USB 3.0 front con., 3.5-Inch
Interface add on cards/components (optional)	
Interface add on cards/components (optional)	Parallel Interface
	eSATA Interface
Base unit	
Base unit	ESPRIMO E5645 E-Star5

Mainboard

Mainboard type	D2984
Formfactor	proprietary
Chipset	AMD 785G
Processor socket	AM3
Processor quantity maximum	1
System bus (FSB / HT / QPI)	up to 4000 MHz
Memory slots	4 DIMM (DDR3)
Supported capacity RAM (max.)	16 GB
Memory frequency	1333 MHz
Memory notes	Dual channel support. For dual channel performance, identical memory modules in each channel are necessary (minimum 2 modules).
LAN	10/100/1000 MBit/s Broadcom BCM57780
BIOS version	Phoenix 6.0
BIOS features	BIOS Flash EPROM update by software Recovery BIOS
Audio codec	Realtek ALC663
Audio features	Internal speaker supports audio playback, High Definition audio

I/O controller on board

Serial ATA total	4
thereof eSATA	1 (optional)
Controller functions	Serial ATA II NCQ and 3 GBit AHCI Raid 1/0

Interfaces

Audio: line-in	1
Audio: line-out	1
Front audio: microphone	1
Front audio: headphone	1
USB 2.0 total	12
USB front	2
USB rear	6
USB internal	4
VGA	1 (via DVI to VGA adapter; included for onboard graphics only)
DisplayPort	1
DVI	1 (Dual link DVI-I)
Serial (RS-232)	1 (9pin, 16 byte FIFO, 16550 compatible)
Mouse / Keyboard (PS/2)	2
Ethernet (RJ-45)	1
Parallel	1 (optional) (25pin with EPP and ECP)
Interface Module notes	Anytime USB charge functionality

Input device / components

	Optical USB tilt wheel mouse
Input devices (optional)	Optical USB/PS2 tilt wheel mouse

Drive bays

Drive bays total	3
3.5-inch internal bays	1
3.5-inch external bays	1
5.25-inch external bays	1
Drive bay notes	optional external bay as internal 3,5"

Slots	
PCI-Express 2.0 x16	1 x (210 mm) low profile
PCI-Express 2.0 x4 (mech. x16)	1 x (210 mm) low profile
PCI (32-bit / 33 MHz)	2 x (190 mm) low profile
Slots optional configuration	or 1x PCI Express x16 low profile (190mm) and via Riser 2 x PCI full height (174 / 210 mm)

Graphics on board

Graphics brand name	ATI Radeon® HD 4200
Shared video memory	up to 2811 MB
Refresh rate 1024 x 768 (recommended / max.)	85 Hz / -
Refresh rate 1280 x 1024 (recommended / max.)	85 Hz / -
Refresh rate 1600 x 1200 (recommended / max.)	85 Hz / -
TFT resolution (VGA)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel
TFT resolution (DVI)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel 2560 x 1440 pixel 2560 x 1600 pixel
TFT resolution (DisplayPort)	1360 x 768 pixel 1440 x 900 pixel 1600 x 900 pixel 1680 x 1050 pixel 1920 x 1080 pixel 1920 x 1200 pixel 2560 x 1440 pixel 2560 x 1600 pixel
Graphics features	Dual display support DirectX 10.1 HDCP support OpenGL® 2.0
Graphics notes	up to 512 MB dedicated video memory (main memory owned and locked for graphics use) Tested resolutions, depending on display type additional resolutions and frequencies possible Shared memory depending on main memory size and operating system Resolution (color depth up to 32 Bit/pixel) For TFT we recommend using 60Hz

Electrical values

Power efficiency note	power supply efficiency (at 230V; 20% / 50% / 100% load) : 84% / 87% / 85%) 0-Watt mode with hard-off switch
Rated voltage range	100 V - 240 V
Rated frequency range	50 Hz - 60 Hz
Operating voltage range	90 V - 264 V
Operating line frequency range	47 Hz - 63 Hz
Max. output of single power supply	250 W
Power factor correction/active power	active
Monitor outlet	No

Power consumption

Power consumption note	See white paper Energy Consumption
Link to Energy White Paper	http://docs.ts.fujitsu.com/dl.aspx?id=46511688-60ba-4d23-8a29-7da3598cb1f2

Heat dissipation

Heat dissipation notes	See white paper Energy Consumption
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Noise for standard configuration (HDD, ODD, FDD)

Noise emission	According to ISO9296
Related Processors for noise	AMD® Phenom™ II X4 945
Noise Operation mode 1: ODD load (Blue angel requirement)	4.5 B / 30 dB(A)
Noise Operation mode 2: HDD load (Blue angel requirement)	3.9 B / 23 dB(A)
Noise Operation mode 3: CPU 90% load (Blue angel requirement)	3.7 B / 22 dB(A)
Noise Operation mode 4: High load	3.8 B / 22 dB(A)
Noise Operation mode 5: Office applications	3.6 B / 20 dB(A)
Idle mode (Blue Angel requirement)	3.5 B / 19 dB(A)
Noise notes / description	A weighted sound power level Lw _{ad} (in B) / workplace related A-weighted sound pressure level Lp _{Am} (in dB(A)), Bystander position

Dimensions / Weight / Environmental

Dimensions (W x D x H)	340 x 380 x 100 mm
Operating position	Vertical / horizontal (no feet needed)
Weight	approx. 10 kg
Weight notes	Actual weight may vary depending on configuration
Operating ambient temperature	10 - 35°C

Compliance

Product	ESPRIMO E5645
Model	DT7-D2984
Germany	Blauer Engel / Blue Angel GS optional
Europe	CE Nordic Swan in progress
USA/Canada	FCC Class B cCSAus
Global	RoHS (Restriction of hazardous substances) WEEE (Waste electrical and electronic equipment) Microsoft Operating Systems (HCT / HCL entry / WHQL) ENERGY STAR® 5.0 EPEAT® Silver
Compliance link	https://sp.ts.fujitsu.com/sites/certificates/default.aspx

Additional Software

Additional software (preinstalled)	Nero Essentials S (burning software)
Additional software (optional)	Recovery DVD for Windows® Drivers & Utilities DVD (DUDVD) CyberLink Power2Go BD (playback software for Blu-ray Disc™, only with Blu-ray Disc™ drive / Blu-ray playback is not supported under Windows XP if the system runs on Intel onboard graphics) Nero 9 Essentials XL

Miscellaneous

Keyboard on (Special Fujitsu keyboard required)
Thermal management

Compatibility (references)

DMI 2.0
PC 2001
WMI 1.5
USB 2.0
SMBIOS

Manageability**Manageability features**

DeskUpdate Driver management
PXE 2.1 Boot code
Wake up from S5 (off mode)
Intrusion switch (optional)
DASH 1.1 Support (optional)

Manageability type

DeskView 10.x client management including:

DeskView features

On/Offline remote client management
Detailed system inventory management and reports
BIOS Management
Remote power management
System notifications
Advanced alerts (ASF implementation)
Security Remote Control
DeskView Helpdesk Integration
WoL (Wake on LAN)

Manageability link

<http://ts.fujitsu.com/manageability>
<http://www.altiris.com/fujitsu>

Security**Physical security**

Kensington Lock support
Eye for padlock
Optional: Integrated cabinet lock

System security

Boot sector virus protection
Write protect option for the Flash EPROM
Embedded security (TPM 1.2)
Control of all USB interfaces
External USB ports can be disabled separately
Control of external interfaces

User security

User and supervisor BIOS password
SystemLock 2 BIOS SmartCard Security
Hard disk password
Optional: Access protection via external SmartCard reader
Optional: Access protection via internal SmartCard reader

Serviceability

FlexySlot
EasyFix
EasyChange for HDD
EasyChange for optical drives

Packaging information**Packaging dimension**

500x290x540 mm

Max. quantity / pallet

24

Material - Weight (g) Carton

1270 g

Material - Weight (g) EPS / PS

230 g

Material - Weight (g) PE

appr. 60 g

Packaging notes

printed user documentation is bleached in chlorine free process

Warranty**Standard Warranty**

1 year

Service level

Bring-In / On-Site Service (depending on country)

Warranty	
Maintenance and Support Services - the perfect extension	
Recommended Service	5x9, Response Time: Next Business Day
Spare Parts availability	5 years
Service Weblink	http://ts.fujitsu.com/Supportservice

More information

Fujitsu platform solutions

In addition to Fujitsu ESPRIMO E5645 E-Star5, Fujitsu provides a range of platform solutions. They combine reliable Fujitsu products with the best in services, know-how and worldwide partnerships.

Dynamic Infrastructures

With the Fujitsu Dynamic Infrastructures approach, Fujitsu offers a full portfolio of IT products, solutions and services, ranging from clients to datacenter solutions, Managed Infrastructure and Infrastructure as-a-Service. How much you benefit from Fujitsu technologies and services depends on the level of cooperation you choose. This takes IT flexibility and efficiency to the next level.

Computing Products

www.fujitsu.com/global/services/computing/

Software

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More information

Learn more about Fujitsu ESPRIMO E5645 E-Star5, please contact your Fujitsu sales representative or Fujitsu Business partner, or visit our website.
<http://ts.fujitsu.com/ESPRIMO>

Fujitsu green policy innovation

Fujitsu Green Policy Innovation is our worldwide project for reducing burdens on the environment. Using our global know-how, we aim to resolve issues of environmental energy efficiency through IT. Please find further information at <http://www.fujitsu.com/global/about/environment/>



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Contact

FUJITSU Technology Solutions
Website: <http://ts.fujitsu.com>
2010-12-27 CE-EN

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